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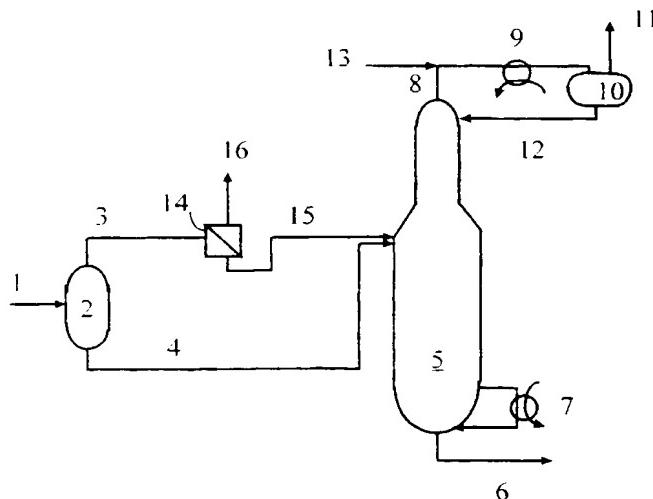
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(57) Abstract: Process to separate propene from gaseous fluid catalytic cracking products by performing the following steps: a) separating a feed mixture comprising the gaseous products, propene and other saturated and unsaturated hydrocarbons obtained in a fluid catalytic cracking process into a hydrocarbon-rich liquid fraction and a hydrogen containing gaseous fraction, b) separating the hydrogen containing gaseous fraction into a hydrogen-rich gaseous fraction and a hydrocarbon-rich gaseous fraction by means of a membrane separation, c) supplying the hydrocarbon-rich gaseous fraction obtained in step (b) to an absorber section and obtaining in said absorber section a lower boiling fraction rich in gaseous products having a boiling point of ethane or below and supplying the hydrocarbon-rich liquid fraction obtained in step (a) to a stripper section and obtaining in said stripper section a higher boiling fraction comprising propene and hydrocarbons having a boiling point higher than ethane.